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EXAMINER	
ROBERTS, JESSICA M	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/700,518	FUJIYAMA ET AL.	
	Examiner	Art Unit	
	JESSICA ROBERTS	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 April 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 3-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 3-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1, 3-9 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

1. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Re claim 1, which recites, "said issuer stops issuing the image renewal instruction only when the period changing instruction is for extending the image reproducing period". Applicant does not have support for the claimed limitation in the specification or the disclosure.

2. Claims 3-5 fails to remedy the issue as stated for claim 1, thus claim 3-5 are too rejected as failing to comply with the written description requirement.

3. Re claim 6, which recites "stops issuing the image renewal instruction only when the period changing instruction..." Applicant does not have support for the claimed limitation in the specification or the disclosure.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1, 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al., US-7,177,523 and in view of Okabayashi et al., US-6, 751,399 and view of Ohmori et al., US-6,678,397.

4. Regarding **clam 1,** Matsumoto teaches An image processing apparatus which sequentially reproduces a plurality of screens of still image signals recorded in a recording medium, comprising: a timer for measuring an image reproducing period (column 5 line 9-14, and 37-46); a first reproducer for reproducing one screen of still image signal from said recording medium every time that a time of said timer elapses (column 5 line 37-46 and fig. 1:5); a second reproducer for reproducing one screen of still image signal from said recording medium (The memory card 7 is a recording medium, and the present invention can be applied not only for the memory card 7, which employs fixed memory as the main storage medium, but also another recording medium, such as an optical or magnetic disk or a magnetic tape (column 3 line 43-47. Further Matsumoto discloses reproducing one image every 500 msec, every 500 msec,

every 250 msec, and every 50 msec (column 5 line 37 to column 6 line 51), without waiting for a lapse of said timer, every time that an image renewal instruction is issued (Matsumoto discloses the for the image search operation during which image feeding, at a corresponding predetermined time intervals, is automatically continued by depressing and holding down an image feed switch, the reproduction of an image depends merely upon the elapse of a specific time interval (column 1 line 28-33. It should be noted that a time interval would consist of starting at zero and ending at an arbitrary end. Therefore, it is clear to the examiner that Matsumoto more than fairly suggest to not waiting on the lapse of a timer, which reads upon the claimed limitation) ; a restarter for restarting said timer every time that said one screen of still image signal is reproduced (column 6 line 52 to column 7 line 8); and an issuer for issuing the image renewal instruction in response to the period changing instruction; wherein said issuer issues the image renewal instruction when the period changing instruction is for shortening the image reproducing period (A control step of , in accordance with the number of images recorded on the recording medium, changing the interval at which displayed images is renewed at the renewal step, column 2 line 28-32. And a system controller, column 3 line 57-60 and column 4 line 57-58). Matsumoto is silent in regards to a changer for changing the image reproducing period in response to a period changing instruction and wherein said issuer stops issuing the image renewal instruction only when the period changing instruction is for shortening the image reproducing period and when the period changing instruction is for extending the image

reproducing period, such that only in a case of shortening the image reproducing period, the image is renewed in response to the issue of the image renewal instruction.

5. However, Okabayashi teaches a changer for changing the image reproducing period in response to a period changing instruction (reproduction speed setting section fig. 3); and an issuer for issuing the image renewal instruction in response to the period changing instruction (system controller, column 3 line 57-60 and column 4 line 57-58); wherein the issuer determines whether the period changing instruction is for shortening the image period or the period changing instruction is for extending the image reproducing period (Okabayashi teaches where the operating section 10 includes various switches 10a, volume controls 10b, LEDs (Light Emitting Diodes) 10c and a fader 10d, and the section 10 is used for selecting and setting various operational conditions of the device, such as start/stop of recording and reproducing modes and recording and reproduction speeds of still and dynamic pictures, col. 5 line 10-17 and fig. 2. Secondly, Okabayashi teaches where START and END switches are for instructing a start and end of reproduction, respectively. SPEED volume control for MOVIE is for designating a reproduction speed of a dynamic picture, col. 5 line 45-48. Further, figs. 5A and 5B show exemplary contents of the dynamic picture table 30 and still picture table 31. For the dynamic picture, the reproduction speed is variable through 10 steps within a range of 1/30 to 3 times of the normal speed. Counter comparison values and address increment values are set in association with the 10 reproduction speed values, col. 6 line 55-61. Since Okabayashi teaches where the operating section 10 includes various switches 10a, volume controls 10b, LEDs (Light Emitting Diodes)

10c and a fader 10d, and the section 10 is used for selecting and setting various operational conditions of the device, such as start/stop of recording and reproducing modes and recording and reproduction speeds of still and dynamic pictures, col. 5 line 10-17 and fig. 2, it is clear to the Examiner that Okabayashi discloses a operating section 10 that is varies allows to vary the reproduction speed by shorting and lengthen the speed, which reads upon the claimed limitation), and wherein said issuer stops issuing the image renewal instruction when the period changing instruction is for shortening the image reproducing period and said issuers stops issuing the image renewal instruction only when the period changing instruction is for extending the image reproducing period (still picture table. Further Okabayashi teaches a still-picture reproduction period setting section that sets a reproduction period for the still picture image information, and the reproducing section reproduces the identified frame of the still picture image information repetitively for the reproduction period set by the reproduction setting section, column 2 line 56-65. Further, START and END switches are for instructing a start and end of reproduction, respectively, Col. 5 line 45-46. Since switches START and END are used for instructing a start and end of reproduction, it is clear to the Examiner that the END switch stops issuing the instruction for reproduction, further, Okabayashi teaches a reproduction period setting section sets the period for reproducing an image, and Matsumoto discloses reproducing an image depends merely upon the elapse of a specific time interval, it is clear to the examiner that reproducing apparatus of Matsumoto, now incorporating the reproduction period setting section, has the claimed limitations.

6. Therefore, it would have been obvious at the time of the invention to combine the teachings of Matsumoto with the teachings of Okabayashi for providing an improved image recording and reproducing device which permits efficient use of an image storage area, and which can optimally reproduce both dynamic picture image and still picture image information stored together in a mixed manner without requiring complex management (column 1 line 64 to column 2 line 2).

7. Matsumoto (modified by Okabayashi) as a whole is silent in regards to such that only in a case of shortening the image reproducing period, the image is renewed in response to the issue of the image renewal instruction.

8. However, Ohmori teaches where it is taken into consideration to reduce time to reproduce an image which is recorded in only the large-capacity recording device 15 with a slow reproduction speed, column 9 line 9-13.

9. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Ohmori with Matsumoto (modified by Okabayashi) in order to reduce time to search and reproduce image data stored in a large-capacity image recording device, (Ohmori column 2 line 18-21).

10. Regarding **claim 3,** Matsumoto (modified by Okabayashi and Ohmori) as whole teaches everything as claimed above, see claim 1. In addition Matsumoto discloses the issuer issues the renewal instruction (column 3 line 57-60 and column 4 line 37-46). However Matsumoto is silent in regards to an image processing apparatus according to claim 1, further comprising a dial for inputting the changing instruction, wherein said issuer stops issuing the image renewal instruction when a reproducing direction of said

plurality of screens of the still image signals is a first reproducing direction and a rotating direction of said dial is a first rotating direction, or when a reproducing direction of said plurality of screens of the still image signals is a second reproducing direction and the rotating direction of said dial is a second rotating direction.

11. However, Okabayashi teaches An image processing apparatus according to claim 1, further comprising a dial for inputting the changing instruction, wherein said issuer stops issuing the image renewal instruction when a reproducing direction of said plurality of screens of the still image signals is a first reproducing direction and a rotating direction of said dial is a first rotating direction, or when a reproducing direction of said plurality of screens of the still image signals is a second reproducing direction and the rotating direction of said dial is a second rotating direction (Okabayashi teaches a still picture reproduction period setting section that sets a reproduction period for the still picture image information(column 2 line 56-64). Further disclosed is operating section10 includes various switches, volume controls, LEDs (Light Emitting Diodes), and a fader, and section10 is used for selecting and setting various operation conditions of the device, such as start/stop recording and reproduction modes and recording and reproduction speeds of still and dynamic image (column 5 line 10-16 and fig. 2). Also, the recording operation section and speed setting sections correspond to the operational entry functions of the operating section, CPU, etc. Tables stored are stored in the ROM (column 5 line 54 to column 6 line 3). It is clear to the examiner that since the operating section contains a dial (volume control) for changing the reproducing speed, and the reproduction sections refers to the still picture table to obtain parameters

necessary for reproduction, that if the reproduction speed or direction is changed, there would be no renewal instruction, which reads upon the claimed limitation).

12. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Matsumoto (modified by Ohmori) with the teachings of Okabayashi for providing an improved image recording and reproducing device which permits efficient use of an image storage area, and which can optimally reproduce both dynamic picture image and still picture image information stored together in a mixed manner without requiring complex management (column 1 line 64 to column 2 line 2).

13. Regarding **claim 4,** Matsumoto (modified by Okabayashi and Ohmori) as a whole teaches everything as claimed above, see claim 3. In addition, Matsumoto teaches an image processing apparatus according to claim 3, wherein the first reproducing direction is a forward reproducing direction (Matsumoto 4 line 16-20), the second reproducing direction is a reverse reproducing direction (column 4 line 21-26). Matsumoto is silent in regards to the first rotating direction is a counterclockwise direction, and the second rotating direction is a clockwise direction.

14. However, Okabayashi teaches the operating section includes various switches, volume controls, LEDs (Light Emitting Diodes) and a fader, and the section is used for selecting and setting various operational conditions of the device, such as start/stop of recording and reproduction modes and recordings and reproduction speeds of still and dynamic pictures (column 5 line 10-17, fig. 2). It is implied from figure 2:10b that the

volume controls would necessitate rotation in both clockwise and counter clockwise direction.

15. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Matsumoto (modified by Ohmori) with the teachings of Okabayashi for providing an improved image recording and reproducing device which permits efficient use of an image storage area, and which can optimally reproduce both dynamic picture image and still picture image information stored together in a mixed manner without requiring complex management (column 1 line 64 to column 2 line 2).

16. Regarding **claim 5 (1),** Matsumoto (modified by Okabayashi and Ohmori) as a whole teaches everything as claimed above, see claim 1. In addition, Matsumoto teaches an image processing apparatus according to any one of claims 1, 3 and 4, further comprising a recorder for recording said plurality of screens of the still image signals in said recording medium (column 1 line 52-54).

17. Regarding **claim 5 (2),** Matsumoto (modified by Okabayashi) as a whole teaches everything as claimed above, see claim 1. In addition, Matsumoto teaches an image processing apparatus according to any one of claims 1, 3 and 4, further comprising a recorder for recording said plurality of screens of the still image signals in said recording medium (column 1 line 52-54).

18. Regarding **claim 6,** which recites the corresponding method for the image processing apparatus of claims 1, 3-5. Thus the analysis and rejection made in claims 1, 3-5 also apply here for common subject matter because the processing apparatus in

claims 1, 3-5 would have necessarily performed the method of claim 6. In addition, Matsumoto is silent in regards to a microcomputer.

19. However, Okabayashi teaches CPU 11 executes overall operations of the image recording and reproducing device, and ROM 12 has prestored therein operating programs and tables for use by the CPU 11, col. 5 line 17-20 and fig. 1 element 11.

20. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Matsumoto with the teachings of Okabayashi for providing an improved image recording and reproducing device which permits efficient use of an image storage area, and which can optimally reproduce both dynamic picture image and still picture image information stored together in a mixed manner without requiring complex management (column 1 line 64 to column 2 line 2).

21. Regarding **claim 9**, Matsumoto (modified by Okabayashi and Ohmori) as a whole teaches everything as claimed above, see claim 1. Matsumoto is silent in regards to an image processing apparatus according to claim 1, further comprising a register for storing the image reproducing period.

22. However, Okabayashi teaches the ROM12 has the prestored therein operation programs and table for use by the CPU 11. Further, disclosed is a reproduction-speed storage section 27 and 28 correspond to a working area of the DRAM 4, see fig. 3 element 27. Since Okabayashi discloses ROM12 has the prestored therein operation programs and table for use by the CPU 11. Since Okabayashi discloses where the storage is external to the CPU, it is implicit that the CPU as disclosed by Okabayashi necessitates the use a register, as in order for the CPU to process the image data

stored in the DRAM , clearly this information would be stored temporarily in a register while the CPU processes image data with respect to the program and table used to determine the reproduction speeds.

23. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate a register in the CPU as a register is internal storage located in the CPU that temporarily holds the data (programs, instructions, data processing) that is processed by the CPU.

24. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okabayashi et al., US-6, 751,399 and in view of Matsumoto et al., US-7,177,523.

25. Regarding **claim 7**, Okabayashi teachers An image reproducing apparatus, comprising: a reproducer which sequentially reproduces an image signal of a plurality of frame recorded in a recording medium (column 2 line 3-11) by sequentially renewing the plurality of frames at a renewing timing according to a predetermined renewing interval; (Okabayashi teaches reproducing section that identifies the individual frames of the dynamic picture image information and the still picture image information stored in the image storage section and reproduces the identified frames of the dynamic picture and the image information and the still picture image information at reproduction speeds that are set, column 2 line 11-19); a changer which changes said renewing interval to be shortened or prolonged in response to a predetermined operation when said predetermined operation is made during a sequential reproducing by said reproducer (Okabayashi teaches a still-picture reproduction period setting section that sets a reproduction period for the still picture image information, and the reproduction section

reproduces the identified frame of the still picture image information respectively for the reproduction period set by the reproduction setting section, column 2 line 56-65. Further, speed setting sections 25 and 26 correspond to the operational entry functions of the operating section 10, CPU 11, etc. Tables 30 and 31 are prestored in the ROM 12, column 6 line 1-3. Dynamic-picture reproduction speed and still-picture reproduction speed designated via the speed setting sections 25 and 26 are stored into the respective reproduction speed storage section 27and 28, column 6 line 9-12 and fig. 3. Therefore, it is clear to the examiner that Okabayashi teaches a reproduction period setting section that sets the period for reproducing an image, which reads upon the claimed limitation). Okabayashi teaches the operating section includes various switches, volume controls, LEDs (Light Emitting Diodes) and a fader, and the section is used for selecting and setting various operational conditions of the device, such as start/stop of recording and reproduction modes and recordings and reproduction speeds of still and dynamic pictures (column 5 line 10-17, fig. 2); and a register for storing the renewing interval (Okabayashi teaches the ROM12 has the prestored therein operation programs and table for use by the CPU 11. Further, disclosed is a reproduction-speed storage section 27 and 28 correspond to a working area of the DRAM 4, see fig. 3 element 27. Since Okabayashi discloses ROM12 has the prestored therein operation programs and table for use by the CPU 11. Since Okabayashi discloses where the storage is external to the CPU, it is implicit that the CPU as disclosed by Okabayashi necessitates the use a register, as in order for the CPU to process the image data stored in the DRAM , clearly this information would be stored temporarily in a register

while the CPU processes image data with respect to the program and table used to determine the reproduction speeds), wherein the changer determines whether the predetermined operation is for shortening the renewing interval or the predetermined operation is for prolonging the renewing interval,(Okabayashi teaches where the operating section 10 includes various switches 10a, volume controls 10b, LEDs (Light Emitting Diodes) 10c and a fader 10d, and the section 10 is used for selecting and setting various operational conditions of the device, such as start/stop of recording and reproducing modes and recording and reproduction speeds of still and dynamic pictures, col. 5 line 10-17 and fig. 2. Secondly, Okabayashi teaches where START and END switches are for instructing a stand and end of reproduction, respectively. SPEED volume control for MOVIE is for designating a reproduction speed of a dynamic picture, col. 5 line 45-48. Further, figs. 5A and 5B show exemplary contents of the dynamic picture table 30 and still picture table 31. For the dynamic picture, the reproduction speed is variable through 10 steps within a range of 1/30 to 3 times of the normal speed. Counter comparison values and address increment values are set in association with the 10 reproduction speed values, col. 6 line 55-61. Since Okabayashi teaches where the operating section 10 includes various switches 10a, volume controls 10b, LEDs (Light Emitting Diodes) 10c and a fader 10d, and the section 10 is used for selecting and setting various operational conditions of the device, such as start/stop of recording and reproducing modes and recording and reproduction speeds of still and dynamic pictures, col. 5 line 10-17 and fig. 2, it is clear to the Examiner that Okabayashi

discloses a operating section 10 that is varies allows to vary the reproduction speed by shorting and lengthen the speed, which reads upon the claimed limitation).

26. Okabayashi is silent in regards to wherein said reproducer includes a first renewer which, when operation for shortening said renewing interval is made by said changer, renews the renewing interval of the register to a shortened value and immediately renews, a frame currently being reproduced at an accepting timing of the operation to a frame to a frame to be subsequently reproduced, and a second frame renewer which renews, when an operation for prolonging said renewing interval is made by said changer, a frame currently being reproduced at an accepting timing of the operation to a frame to be subsequently reproduced with a renewing timing such that the renewing interval between the frame currently being reproduced and a frame to be subsequently reproduced becomes equal to the renewing interval changed by said changer.

27. However, Matsumoto discloses wherein said reproducer includes a first renewer (Matsumoto discloses where when the image feed switch 13 is ON at step S01, first one image direction, and the displayed image is renewed, column 5 line 9-14 and 37-46. Thus, it is clear to the Examiner that when the feed switch 13, is switched ON, the renewal of the images is activated, which reads upon the claimed limitation) which when operation for shortening said renewing interval is made (Matsumoto discloses where in an operation wherein images stored on a recording medium are sequentially read and reproduced by depressing the image feed switch 13, as the number of images have been fed is increased, the interval for feeding images (the interval for renewing a

displayed image) is shorted, and image feeding performed at high speed is possible. In a more detailed explanation for the image feeding operation of the invention the image feeding interval can be set at three levels: a low renewal interval, a medium renewal interval and a high renewal interval. A user can arbitrarily select a renewal interval by changing the initial key timer value, column 7 line 9-23. Therefore, it is clear to the examiner that Matsumoto discloses to shorten the renewal interval, as well to adjust the renewal interval, which reads upon the limitation), renews the renewing interval to a shortened value (Matsumoto discloses where an image feed switch 13, manipulated to instruct the sequential reading and reproduction of images recorded on the memory card 7 while, reference to the image file names and the recording times, the images are fed in the forward (+) direction, col. 4 line 16-20. Matsumoto discloses where in an operation wherein images stored on a recording medium are sequentially read and reproduced by depressing the image feed switch 13, as the number of images have been fed is increased, the interval for feeding images (the interval for renewing a displayed image) is shorted, and image feeding performed at high speed is possible. In a more detailed explanation for the image feeding operation of the invention the image feeding interval can be set at three levels: a low renewal interval, a medium renewal interval and a high renewal interval. A user can arbitrarily select a renewal interval by changing the initial key timer value, column 7 line 9-23, it is clear to the examiner that Matsumoto discloses the image feed switch manipulates the renewal of the images that are stored in the memory card, which reads upon the claimed limitation. Since Okabayashi discloses to store the renewal interval in a register and Matsumoto teaches

where the image feed switch renewals the images at three levels (low, medium, and high), and the user can select renewal interval by changing the key timer, it is clear to the Examiner that by changing the renewal interval for the images stored in memory by changing the key timer (value) would be reflected in the registered to which the renewal interval is stored in, which reads upon the claimed limitation) and a frame currently being reproduced at an accepting timing of the operation to a frame to be subsequently reproduced (Matsumoto discloses where the images stored on a recording medium are sequentially read and reproduced by depressing the image feed switch, column 7 line 9-12. Since Matsumoto discloses the images stored and on a recording medium and are sequentially read and reproduced by depressing the image feed switch, therefore, it is clear to the examiner that by reproducing the images in sequential order it obvious that an accepted reproducing time is associated with a current frame, which reads upon the claimed limitation) , and a second frame renewer which renews, when an operation for prolonging said renewing interval is made by said changer (Matsumoto discloses the memory card 7 is a recording medium, and the present invention can be applied not only for the memory card 7, which employs a fixed memory as the main storage medium, but also another recording medium, such as an optical or magnetic disk or a magnetic tape, column 3 line 43-47. Further reproducing one image every 500 msec, every 500 msec, every 250 msec, and every 50 msec (column 5 line 37 to column 6 line 51. Further disclosed is for the images search operation during which image feeding, at a corresponding predetermined time intervals, is automatically continued by depressing and hold down an image feed switch, the reproduction of an image depends merely

upon the elapse of a specific time interval, column 1 line 28-33. The interval for renewing a displayed image) is shorted, and image feeding performed at high speed is possible. In a more detailed explanation for the image feeding operation of the invention the image feeding interval can be set at three levels: a low renewal interval, a medium renewal interval and a high renewal interval. A user can arbitrarily select a renewal interval by changing the initial key timer value, column 7 line 9-23. Therefore, it is clear to the examiner that Matsumoto discloses to adjust the renewal interval, which reads upon the limitation), a frame currently being reproduced at an accepting timing of the operation to a frame to be subsequently reproduced with a renewing timing such that the renewing interval between the frame currently being reproduced and a frame to be subsequently reproduced becomes equal to the renewing interval changed by said changer (Matsumoto discloses where each time the image feed switch 13 is depressed (ON), the image on the display is shifted to the next image in the forward direction or, each time the image return switch 14 is depressed (ON), it is shifted to the preceding image in the backward direction. Further, when the image feed switch 13 or the image return switch 14 remains in the ON position for a period equal to or longer than a predetermined time period of time, all the images of the memory card 7 can be automatically and sequentially reproduced in the ascending order or in the descending order, while referring to their image numbers, their image file names and their image recording times, so that the image on the display can be continuously renewed, column 4 line 30-42. Therefore it is clear to the examiner that Matsumoto discloses to

sequentially reproduce a set of frames, while maintaining the renewal period equal to a period of reproduction, which reads upon the claimed limitation).

28. Therefore, taking the Image reproduction apparatus of Matsumoto with Okabayashi teaching of a volume control (dial) for adjusting the renewal intervals includes all claimed limitations.

29. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Okabayashi (modified by Matsumoto) for providing an apparatus that can accurately and quickly search for a desired image, regardless of the number of images recorded on a recording medium.

30. Regarding **claim 8,** Okabayashi (modified by Matsumoto) as a whole teaches everything as claimed above, see claim 7. In addition, Okabayashi teaches An image reproducing apparatus according to claim 7, wherein said changer includes a jog dial (volume control, column 5 line 10-15), and the operation for shortening said renewing interval is an operation that the jog dial is turned in a first direction, and the operation for prolonging said renewing interval is an operation that the jog dial is turned in a second direction that is different from the first direction (Okabayashi teaches a still picture reproduction period setting section that sets a reproduction period for the still picture image information (column 2 line 56-64). Further disclosed is operating section 10 includes various switches, volume controls, LEDs (Light Emitting Diodes), and a fader, and section 10 is used for selecting and setting various operation conditions of the device, such as start/stop recording and reproduction modes and recording and reproduction speeds of still and dynamic image, column 5 line 10-10 and fig. 2). Further,

the recording operation section and speed setting sections correspond to the operational entry functions of the operating section, CPU, etc. Tables stored are stored in the ROM (column 5 line 54 to column 6 line 3). It is implied from figure 2:10b that the volume controls would necessitate rotation in both clockwise and counter clockwise direction, which reads upon the claimed limitation.

Conclusion

31. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JESSICA ROBERTS whose telephone number is

(571)270-1821. The examiner can normally be reached on 7:30-5:00 EST Monday-Friday, Alt Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marsha D. Banks-Harold/
Supervisory Patent Examiner, Art Unit 2621

/Jessica Roberts/
Examiner, Art Unit 2621